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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,723	09/18/2003	Yee Liaw	105479-58447 (644-022)	4649
26345	7590	02/23/2010	EXAMINER	
GIBBONS P.C. ONE GATEWAY CENTER NEWARK, NJ 07102			PEYTON, TAMMARA R	
			ART UNIT	PAPER NUMBER
			2182	
			NOTIFICATION DATE	DELIVERY MODE
			02/23/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPDocket@gibbonslaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/665,723	<b>Applicant(s)</b> LIAW ET AL.	
	<b>Examiner</b> TAMMARA R. PEYTON	<b>Art Unit</b> 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38,40-44,46 and 47 is/are pending in the application.
- 4a) Of the above claim(s) 1-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 37,38,40-44,46 and 47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The Examiner is maintaining the rejection for claims 46 and 47 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claim 47 includes Only Memory device, a Compact Disc write device, a Compact 2 Disc re-write device, , a Digital VideoDisc Random Access Memory device, a cassette recorder, a headset, a camcorder, a fingerprint reader, a retina scanner, a biometric authentication device, and a personal digital assistant, that was not described in the specification. From claim 46, a Centronics device, an Advanced Technology device, a Super-Video device, a Digital Video Interface device. Examiner requests that Applicant note the claims above for other claimed subject that was not described in the specification. Nowhere in the Specification are the terms a fingerprint reader, a retina scanner, a biometric authentication device, or a Super-Video device listed thereby these claims contain new matter.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37, 38, 40-43, 46, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admission of Prior Art (AAPA) via Ahern et al. (US 6,388,658) and Thornton et al., (US 6,385,666) and Thornton et al. (US 6,633,934).

The claims and only the claims form the metes and bounds of the invention. "Office personnel are to give claims their broadest reasonable interpretation in light of the supporting disclosure. In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541,550-551 (CCPA 1969)" (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. The Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

As per claims 37 and 43, AAPA-Thornton'666 and Thornton'934 teaches a method of transmitting signals via a computer management system comprising the steps of:

receiving keyboard signals (AAPA-Thornton'666,18, Fig. 1 and see Specification pgs. 13-15), video signals (AAPA-Thornton'666 R,G,B, Fig. 2) , mouse signals (AAPA-Thornton'666 20, Fig. 1), and audio signals (Thornton'934 teaches audio controller, 64 for speakers 24, Figs. 1 and 2a, col. 5, lines 10-col. 13, lines 1-64) at a transmission node;

forming a data packet (both AAPA-Thornton'666 and Thornton'934 disclose this), comprising said keyboard signals, said mouse signals, and said audio signals (Thornton'934);

encoding (both AAPA-Thornton'666 and Thornton'934 disclose this), a vertical synchronization signal onto one of a red, blue, and green

component of said video signals;

encoding (both AAPA-Thornton'666 and Thornton'934 disclose this), a horizontal synchronization signal onto one of said red component said blue component, and said green component of said video signals;

However, AAPA-Thornton'666 and Thornton'934 do not disclose transmitting said data packet, blue, green, and red over a first, second, third, and fourth pair of wires.

Nonetheless, AAPA-Ahern teaches transmitting said keyboard and mouse signals via a data packet to a receiving node via a first pair of wires in a CAT 5 conductor cable; transmitting said red component of said video signals to said receiving node via a second pair of wires in said a CAT 5 conductor cable; transmitting said blue component of said video signal to said receiving node via a fourth pair of wires in said a CAT 5 conductor cable; and transmitting said green component of said video signal to said receiving node via a third pair of wires in said a CAT 5

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conductor cable. Further, it is well known in the art that KVM switching systems utilize eight conductor wires, preferably in the form of Category 5 ("CAT 5") cabling, to connect the workstations and remote computers to the KVM switch.

AAPA-Thornton'666, Thornton'934, and AAPA-Ahern are analogous art because they are all related to a system having a switch electrically coupled directly to the keyboard, video monitor, and mouse for receiving and transmitting the connected devices signals. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify the method of AAPA-Thornton'666 and Thornton'934 that would encodes keyboard, video, mouse and audio signals with the horizontal and vertical synchronization signals into a data packet for transmission over one of the twisted pair in the CAT 5 cable and the remaining three twisted pair in the CAT 5 cable because doing so would have add and expand the flexibility of AAPA-Thornton'666 and Thornton'934 by enabling the signals to be transmitted bi-directionally down a single twisted pair of the CAT5 cable without interfering with the circuitry that is common to all switch modules typically utilized in computer network environments.

Further, AAPA-Thornton'666, Thornton'934, and AAPA-Ahern all teach a form of a 64 data packet that includes the data signals of audio, keyboard, mouse, and a selection of auxiliary devices. However, they do not expressly teach wherein said 64 data packet comprises a first section of 2 bits including overhead data, a second section of 34 bits for representing said audio signals, and a third section of 10 bits for representing said keyboard signals and said mouse signals and a fourth section of 18 bits including auxiliary data. However, this limitation is not structurally involved in the elements of the recited system. Therefore this limitation is deemed to

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be nonfunctional descriptive material. The elements of the system would be the same regardless of what sections the data packet is utilized and the differences between the content of the Applicant's invention and the prior art are merely subjective. Thus this nonfunctional descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, see *In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401,404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994) also see MPEP 2106. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a first, second, third, and fourth data packet section that carries the length, audio signals (obvious via Thornton'934), and keyboard/mouse signals (obvious via AAPA-Thornton'666, Thornton'934, and AAPA-Ahern) and auxiliary data (obvious via AAPA-Thornton'666, Thornton'934, and AAPA-Ahern teaches a selection of auxiliary peripheral devices) in more than one section of the header because such information does not structurally relate to the elements of the claimed system and because the subjective interpretation of information does not patentably distinguish the claimed invention. The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options with his or her technical grasp. This leads to the anticipated success and is the product not of innovation but of ordinary skill and common sense. Further, "the conclusion of obviousness may be made from common knowledge and common sense of a person of ordinary skill in the art without any specific hint or suggestion in a particular reference." (*In re Bozek*, 416 F.2d 1385, 163 USPQ 545 (CCPA 1969).

In regards to Applicant's Remarks on pg. 17 that states: "Further, the Applicant has amended the claims to require that the data packet being transmitted within a time limit. As is dearly discussed in the application, high- quality audio for transmission is one objective of the

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present invention. It is yet another object of the present invention to allow audio generated at a user workstation to be played at near CD quality at a remote computer." See page 21, line 21-23 of the present application. Such high- quality audio requires a certain bit depth.. The 34 bits allow sufficient bit depth of CD quality audio. Thus, the claims now include a functional limitation." Examiner does not necessarily disagree with Applicant's statement however, although claims are interpreted in light of the specification, limitations from the specification are not read into the claims. (See *In re Van Geuns*, 988 F.2d 1181,26 USPQ2d 1057 (Fed. Cir. 1993), *In re Sporck*, 55 CCPA 743,386 F.2d 924, 155 USPQ 687 (1968) Again, if Applicant wanted to clearly define the claim over the prior art Examiner does not understand why Applicant would not add such limitation language that "requires that the data packet being transmitted is within a time limit" to further clarify the claim invention.

As per claims 38 and 44, AAPA-Ahern specifically describes converting said red component of said video signals to a differential signal; converting said green component of said video signals to a differential signal; and converting said blue component of said video signals to a differential signal via the differential input or output from the CAT5 side are connected to the differential line receiver or differential line driver. (col. 7, lines 1-col. 9, lines 1-63) Further, AAPA-Ahern specifically teaches wherein the external system communication is based on differential signals and that the previously prepared data packages, as prepared by the user or computer interface modules (17, 51) are received by differential line receivers at the CATS cable inputs.



As per claims 40-42 and 46, 47, Thornton'934 teaches wherein audio device (Fig. 2) is at least one of an audio in port of said computer and an audio out port of said computer, and wherein said audio device is selected from the group consisting of a speaker, an audio headset, a projector, an analog audio recording device, a digital audio recording device, a second computer, a cassette recorder, a Compact Disc writer, a Digital VideoDisc writer, a television, a camera, a telephone, a cellular telephone, and a personal digital assistant. AAPA-Thornton'666, Thornton'934, and AAPA-Ahern teach wherein said auxiliary peripheral device is selected from the group consisting of a serial port device, a Universal Serial Bus device, a Recommended Standard 232 device, a PS/19 device, a parallel device, a firewire device, a Registered Jack 28 device, a Registered Jack 21 device, a Registered Jack 45 device, a Registered Jack 48 device, a British Naval Connector device, a Centronics device, an Advanced Technology device, a Super-Video device, a Digital Video Interface device, an Integrated Development Environment device, a Fiber Distributed Data Interface device, a switch closure device, or a Small Computer System Interface device.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The examiner requests, in response to this office action, support be shown for language added to any original claims on amendment and any new claims. That is, indicate support for newly added claim language by specifically pointing to page(s) and line number(s) in the specification and/or drawing figure(s). This will assist the examiner in prosecuting the application. When responding to this office action, applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. I .III(c). In amending in reply to a rejection of claims in an application or patent under reexamination, the applicant or patent owner must clearly point out the patentable novelty which he or she thinks the claims present in view the state of the art disclosed by the references cited or the objections made. The applicant or patent owner must also show how the amendments avoid such references or objections. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (571) 272-4157. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272- 6729. The fax phone number for the organization where this application or proceeding is assigned is (571) 273- 8300. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272- 2100.

/Tammara R Peyton/

Primary Examiner, Art Unit 2182

February 15, 2010